

Having thus described our invention, what we claim as new, and desire to secure by

Letters Patent is:

1    1. A method for transmitting data in unused portions of licensed communication  
2       channels comprising:

3               selecting an unused first portion of a first licensed communication channel,  
4               configuring a transmitter to operate in said unused first portion, and  
5               transmitting downstream digital data using a transmitting antenna operating on  
6               said first portion.

1    2. The method of transmitting data of claim 1 further comprising:

2               selecting an unused second portion of a second licensed communication channel,  
3               configuring an upstream downconverter to operate in said unused second portion,  
4               and  
5               receiving upstream digital data using a receiving antenna operating on said  
6               unused second portion.

1    3. The method of transmitting data of claim 2 wherein said first communications  
2       channel and said second communications channel are different.

1    4. The method of transmitting data of claim 1 wherein said downstream digital data is  
2       selected from a group consisting of telephony signals, high-speed data, digital video  
3       signals and DTV signals.

1       5. The method of transmitting data of claim 1 further comprising enabling a subscriber  
2                  to select a method of transmitting upstream data from using the unused second  
3                  portion, using a cable connection, and using a wired connection.

1       6. The method of transmitting data of claim 1 wherein said transmitting antenna  
2                  comprises an array of transmitting antennae.

1       7. A method for receiving data in unused portions of licensed communication channels  
2                  comprising:  
3                          selecting an unused first portion of a first licensed communication channel,  
4                          configuring an upstream downconverter to operate in said unused first portion,  
5                          and  
6                          receiving upstream digital data using a receiving antenna operating on said first  
7                          portion.

1       8. The method for receiving data of claim 7 further comprising the steps of:  
2                          selecting an unused second portion of a second licensed communication channel,  
3                          configuring a transmitter to operate in said unused second portion, and  
4                          transmitting downstream digital data using a transmitting antenna operating on  
5                          said unused second portion.

1       9. The method for receiving data of claim 8 wherein said first communications channel  
2                  and said second communications channel are different.

1       10. The method for receiving data of claim 7 further comprising enabling a subscriber to  
2                  select a method of transmitting upstream data from using the unused first portion,  
3                  using a cable connection, and using a wired connection.

1       11. The method for receiving data of claim 7 wherein said upstream digital data is  
2                  selected from a group consisting of telephony signals, high-speed data, digital video  
3                  signals and DTV signals.

1       12. The method for receiving data of claim 7 wherein said receiving antenna comprises  
2                  an array of receiving antennae.

1       13. The method for receiving data of claim 7 wherein said transmitting antenna comprises  
2                  an array of transmitting antennae.

1       14. A method for transmitting and receiving data in unused portions of licensed  
2                  communication channels comprising:  
3                          selecting an unused first portion of a first licensed communication channel,  
4                          configuring a transmitter to operate in the said unused first portion,  
5                          transmitting downstream digital data using a transmitting antenna operating on  
6                          said first portion,  
7                          selecting an unused second portion of a second licensed communication channel,  
8                          configuring an upstream downconverter to operate in the said unused second  
9                          portion, and  
10                          receiving upstream digital data using a receiving antenna operating on said  
11                          unused second portion.

- 1 15. The method for transmitting and receiving data of claim 14 wherein said first  
2 communications channel and said second communications channel are different.
- 1 16. The method for receiving and receiving data of claim 14 further comprising enabling  
2 a subscriber to select a method of transmitting upstream data from using the unused  
3 second portion, using a cable connection, and using a wired connection.
- 4 17. The method for transmitting and receiving data of claim 14 wherein said downstream  
5 digital data and said up stream digital data is selected from a group consisting of  
6 telephony signals, high-speed data, digital video signals and DTV signals.
- 1 18. The method for transmitting and receiving data of claim 14 wherein said receiving  
2 antenna comprises an array of receiving antennae.
- 1 19. The method for transmitting and receiving data of claim 14 wherein said transmitting  
2 antenna comprises an array of transmitting antennae.